

NEW AND INTERESTING RECORDS OF ADVENTIVE PLANTS FROM THE AUCKLAND INSTITUTE AND MUSEUM HERBARIUM 12

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Abstract. This twelfth list of additions to the Auckland Institute and Museum Herbarium (AK) by exchange or by presentation from collectors provides new records for some adventive species and further information on the distribution of others.

The main source of material for this twelfth list has been by exchange with Botany Division, D.S.I.R., Christchurch (CHR) or by the acquisition of voucher specimens from the Botany Department, University of Auckland (AKU). In particular, voucher specimens have been presented by Mr A.E. Esler, D.S.I.R., Auckland.

The nomenclature adopted in this paper follows that of the series of checklists published in the *New Zealand Journal of Botany* from 1978 onwards by members of the staff at Botany Division, D.S.I.R., Christchurch, for dicotyledons, or that of volume 3 of the *Flora of New Zealand* by Healy & Edgar (1980) for monocotyledons.

All specimens are cited by the AK number and by the collectors' numbers where these are provided. Unless otherwise stated the specimens may be regarded as the only naturalised material of the species possessed by the Herbarium and, where no previous literature is cited, as first records for New Zealand to the best of my knowledge at the time of writing.

FUMARIACEAE

Corydalis lutea (L.) DC.

Stratford Co., Douglas, Taranaki, waste ground at edge of stream, 1956, R. Mason 4244, AK 163155 (dupl.ex CHR 91043).

This duplicate from CHR is the sole representative of yellow fumitory in the AK Herbarium. The locality is included in the distribution published by Garnock-Jones (1979), where the first record is stated to be in Smith (1904). In spite of the plant's long occurrence in this country it is still noted as "rare and local".

BRASSICACEAE

Arabidopsis thaliana (L.) Heynh.

Nelson, south branch Motueka River mouth, roadside verge 1985, A.J. Watson, AK 173764, det. P.Champion, (dupl.ex Waikato Technical Institute Herbarium No. 493); Waitemata Co., Browns Bay, Palmers' carpark, 1986, E.B. Bangerter 5556, AK 175624.

These two gatherings, the former presented by the Waikato Technical Institute, have been added to the one recorded by Bangerter (1975). It is noted simply as a "weed". Garnock-Jones (1979) does not include Nelson in the distribution of wall-cress. The second gathering above has the note "rare in *Antirrhinum* bed with *Coronopus didymus*, *Cardamine hirsuta* and *Spergula arvensis*".

Brassica juncea (L.) Czern.

Whangarei Co., Mimiwhangata, Rimariki Island, north-western coast, 1981, A.E. Wright 4467, AK 156140; A.E. Wright 4469, AK 156141; A.E. Wright 4463, AK 156149. (All three specimens collected on the same day).

The first record for this species is in Garnock-Jones (1979) where Northland is included in the distribution. Cameron (1984) cites a specimen from Lady Alice Island in the Herbarium of Auckland University (AKU 12538).

Sisymbrium altissimum L.

Vincent Co., Otago, Earnsclough, 1984, F.A. Meeklah, AK 173080, det. P.J. Garnock-Jones, (dupl.ex CHR 417244); Vincent Co., Cromwell, 1936, H.H. Allan, AK 66603, det. A.J. Healy 1957.

Although often recorded since 1870, tumbling mustard is represented in the AK Herbarium only by the two gatherings above. The earlier one is noted as a "roadside weed" whilst the later is recorded as "common" in a "newly planted orchard". The locality of these two specimens is covered by the distribution in Garnock-Jones (1979).

CARYOPHYLLACEAE

Silene vulgaris (Moench) Garcke ssp. *vulgaris*

Southland, Riverton, south side of Jacobs River estuary on highway 99, 1982, D.R. Given 13174 & H.K. Hall, AK 174804, (dupl.ex CHR 403712); Waitemata Co., Milford, Wolsey Road, roadside, 1985, E.B. Bangerter 5554, AK 170804.

The first gathering above was acquired by exchange from CHR as authentic material from the South Island. A note with the specimen says "scattered patches up to

1 m across, 50 cm tall". The second gathering is from the Auckland area, not given by Garnock-Jones (1981) in the distribution of this bladder-campion and considered rare by A.E. Esler. The habitat note says "few plants on roadside verge among garden outcasts with *Trifolium repens* and *Sonchus oleraceus*". There are three other gatherings in AK and several records in the literature.

GERANIACEAE

Erodium botrys (Cav.) Bertol.

Central Otago, near lucerne paddocks, 1985, F.A. Meeklah & M. Turner, AK 176280, det. W.R. Sykes, (dupl.ex CHR 421023).

Long storksbill is listed in Healy (1984) as "not known in the wild state in New Zealand". It is therefore not included in Sykes (1982). A note with the specimen above says "specimens come from several localities".

BALSAMINACEAE

Impatiens sodenii Engl.

Waitemata Co., Waitakere Tramline, 1978, C. Soulje, AK 155261; Bay of Islands Co., Motuarohia Island, 1980, R.E. Beever 80107, AK 156792. Both specimens det. A.E. Wright 1984.

The latter of the two specimens above is a voucher for the record in Beever, Esler & Wright (1984). The other completes the representation of this species in the AK Herbarium. Sykes (1982) gives its distribution, which includes Wellington as well as Auckland, and attributes the first record to Healy (1958). The distribution is extended further to the eastern North Island by Heginbotham & Esler (1985) who describe the species as "horticultural plants growing in semi-wild state".

MYRTACEAE

Angophora costata (Gaertn.) Druce

Auckland City, Wisely Road, from tree in Williams Road, Hobsonville, 1985, A.E. Esler, AK 173110.

I am indebted to Mr W.R. Sykes for the correct authorities for this species. The gathering was kindly presented by Mr A.E. Esler, who notes on the label "naturalised in scrubland now being developed for housing; some trees being left for landscaping". In a letter accompanying the specimen Mr Esler says "probably the first collection in New Zealand as a wild plant".

MALVACEAE

Abutilon theophrasti Medik.

Manukau Co., Papakura, Dominion Road, 1983, G.M. Hood, AK 170745, det. A.E. Esler.

This is the second specimen of this plant in the AK Herbarium. A note on the label reads "appeared in garden — suspected from fowl wheat". Webb (1981) records "known from Ararimu and Lincoln only".

EUPHORBIACEAE

Euphorbia characias L.

Auckland City, Mt. Wellington, 1985, A.E. Esler, AK 173111, det. A.E. Esler.

This is the only specimen of Wulfen spurge in the AK Herbarium and extends northward the distribution as given in Webb (1981). A note with the gathering says "locally plentiful as a naturalised plant with grass in woodland."

GROSSULARIACEAE

Ribes sanguineum Pursh.

Lake Co., Queenstown Hill, 1982, W.R. Sykes 160/82, AK 176216 (dupl.ex CHR 400829).

Although well recorded and according to Given (1948b) with a wide distribution from south of the North Island to the South and Stewart Islands, flowering currant is represented in the AK Herbarium by only the above specimen. The habitat is shown as "*Pseudotsuga* plantation, rather open part near track". Following a detailed description is the comment "A common adventive species".

ROSACEAE

Potentilla recta L.

Otago, between Waipiata and Kokonga on Kokonga Road, 1984, D.R. Given 13549 & C. Frampton, AK 176218 (dupl.ex CHR 416252).

In spite of the fact that tall cinquefoil has been recorded a number of times this is the only naturalised adventive specimen in the AK Herbarium. The habitat is

“roadside, dry but with tall grasses and forbs” and it is “common in grassland”. Given (1982) records its distribution as Marlborough, Canterbury and Otago.

UMBELLIFERAE

Apium graveolens L.

Three Kings Group, Great Island, 1983, A.E. Wright 6078, AK 173008-9, det. A.E. Wright 1986. (dupl. sent to CHR).

This is a recent addition to the AK Herbarium which otherwise possesses two old specimens in Herb. Cheeseman. Further information on the label says “growing in seepage area on cliffs 100 m S.E. of Tasman Stream Waterfall. Originally planted by fishermen? Now abundantly naturalised”. In Webb (1978) the distribution of wild celery is given as South Auckland and Canterbury.

COMPOSITAE

Dahlia coccinea Cav. X. *D. pinnata* Cav.

Christchurch, Hornby, waste land — old shingle pit (Smarts Pit), 1966, A.J. Healy 66/217, AK 173096, det. C.J. Webb 1985 (dup.ex CHR 172723); Waitemata Co., Waitakere Range, Waiatarua, 1981, J. Mackinder, AK 155014, det. C.J. Webb 1986.

These two specimens determined by Dr Webb represent this hybrid dahlia in the AK Herbarium. The former, acquired by exchange from DSIR Christchurch, is noted as a “persistent garden outcast”. The latter presented to AK by the collector is described as “3 stems growing beside the road, one in flower”.

Dahlia excelsa Benth.

Port Nelson, Tahunanui, 1974, A.J. Healy 74/75, AK 173053-4, det. C.J. Webb 1985 (dupl.ex CHR 234981); Auckland City, Sandringham Road below railway line and opposite Walters Road, 1984, E.K. Cameron 2922, AK 171364, (dupl.ex AKU 16191); Auckland City, Auckland Domain, gully opposite intersection of Titoki Street and Domain Drive, 1974, J.H. Goulding 587 & E.B. Bangarter, AK 134651.

The first of these gatherings of the tree-dahlia is from the original locality of the first record in Given (1984a). It is described as “stems to 5 m tall, inner phyllaries appressed \pm hyaline \pm shining. Ray florets \pm 8. Also in other Nelson localities.” The second is “3-4 m tall, large pink flowerheads, covering an area \pm 20 x 80 m”. The third collected by Miss Jeanne Goulding and myself is from a “clump c3 m tall”.

Tagetes minuta L.

Piako Co., Walton, maize paddock, 1981, P.B. Heap, AK 163008, det. C.E. Ecroyd, (dupl.ex NZFRI 11051).

This specimen of Mexican marigold from the herbarium of the Forest Research Institute at Rotorua is the only one in the AK Herbarium. Distribution of the species is in Given (1984a). Esler (1978) records "not seen in Manawatu". The height of the plant is stated as "up to 1 m high".

BORAGINACEAE

Cynoglossum amabile Stapf & Drumm.

Rodney Co., north of Kaukapakapa and Helensville, 1985, K. Wood, AK 176176, det. A.E. Esler.

The Chinese forget-me-not was first recorded growing wild in 1975 according to Sykes (1981b), who states that it is "a rare escape from cultivation". Notes with the specimen give a more detailed location as "scattered along about 2 chains beside newly sealed portion of Highway 16 between Glorit Hall and south entrance road to Mt. Auckland walkway". The habitat "growing in heavy clay" and colour of flowers "deep blue".

SCROPHULARIACEAE

Veronica scutellata L.

Lake Wairarapa, near old channel of Ruamahanga River, 1983, C.C. Ogle 974, AK 167407, det. B.H. Macmillan, (dupl. ex CHR 404623).

This duplicate from CHR Herbarium is the first example of marsh speedwell in the AK Herbarium, although it has been recorded in the literature several times. The habitat note on the label says "growing in ungrazed swampy pasture among *Carex lesssoniana*". Distribution may be found in Sykes (1981a).

SOLANACEAE

Cestrum aurantiacum Lindl.

North Cape Co., beside Tapotupotu Bay, by estuary, 1984, E.K. Cameron 2812, AK 171357 (dupl.ex AKU 15955).

Distribution for orange cestrum is in Sykes (1981b), covering a large part of the northern half of the North Island. The above gathering, acquired by exchange from the University of Auckland's Herbarium is the only example in the AK Herbarium of the species as a wild plant. Further information on the label reads "plants 1-2m tall, locally abundant under kanuka/manuka".

BUTOMACEAE

Hydrocleys nymphoides (Humb. & Bonpl.) Buchenau

Rodney Co., Kaipara, Tauhoa, 1985, D. Armstrong, AK 170718, det. A.E. Esler.

This water poppy was sent to Mr A.E. Esler for identification by the Ministry of Agriculture and Fisheries and presented by him to the AK Herbarium. A note with the specimen reads "farm dam with *Myriophyllum aquaticum*". Two other sheets AK 95116-7 from the original gathering, Te Aroha, by Cheeseman are in the Herbarium, part of the first collection as cited in Healy & Edgar (1980), who also comment on the plant's aggressive spread.

LILIACEAE

Asparagus sprengeri Regel

Auckland Domain, lower slopes, 1983, E.K. Cameron 2283, AK 163048, det. A.E. Wright, (dupl.ex AKU 14942).

This duplicate from the AKU Herbarium adds another sheet to the two recorded in Bangerter (1982). This species of *Asparagus* does not appear in Healy & Edgar (1980) but is described by Esler (1984). A note with the specimen above says "roadside bank \pm climbing. Pl. \pm 1.5 m long possesses spines".

Lilium formosanum A. Wallace

Waitemata Co., Waitakere Range, Scenic Drive, Waiatarua, 1980, J. Mackinder, AK 154848; Coromandel Co., Coromandel Peninsula, Cooks Beach, 1984, K. Mays, AK 170721, det. A.E. Wright 1985.

These are the only specimens of this lily in the AK Herbarium, first recorded by Healy and Edgar (1980) as from Whakatane in 1972. A habitat note with the latter specimen says "growing profusely along the beach-front reserves and for several kms along the roadside approaches".

IRIDACEAE

Gladiolus byzantinus Miller

Auckland City, Grafton, banks of southern motorway adjacent to Grafton Road overbridge, 1982, A.E. Wright 5176, AK 162169; Auckland City, Great South Road, near Remuera Railway Station, 1984, R.O. Gardner, 4402, AK 171961, det. A.E. Wright 1986.

A note in Healy & Edgar (1980) says that this species was recorded in 1870 by Kirk but no specimens have been seen since. These authors give a detailed description of this distinctive gladiolus. Notes with the above gatherings concur. The former were "growing amongst shrubs and unmown grasses on motorway margins". The flowers were "crimson-purple with a white stripe along the middle of each of the three lower petals". The latter were "three plants together in dry grass" with "petals various shades of iridescent mauve, the lowest one with a central stripe".

Gladiolus nanus Andr.

Waitemata Co., Waitakere Range, Cornwallis Road, 1985, J. Mackinder, AK 176511, det. A.E. Wright 1987; Waitemata Co., Glen Eden, Waikumete Cemetery, 1986, A.E. Esler, AK 176485, det. A.E. Esler.

This species is not recorded in Healy & Edgar (1980). Habitat for the former is "In long grass, roadside". For the latter it is "naturalised in rough grass among graves".

Ixia paniculata Delaroche

Waitemata Co., Glen Eden, Waikumete Cemetery, 1986, A.E. Esler AK 176484, det. A.E. Esler.

Mr Esler's gathering was made from the same locality and in the same habitat as *Gladiolus nanus*. The species is noted in Healy & Edgar (1980) as having been collected only once, in 1972 on Muriwai Road, Auckland, which is also in Waitemata Co., towards the west coast.

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REFERENCES

- BANGERTER, E.B.
 1975 New and interesting records of adventive plants from the Auckland Institute and Museum Herbarium 1. *Rec. Auckland Inst. Mus.* 12:91-94.
 1982 New and interesting records of adventive plants from the Auckland Institute and Museum Herbarium 8. *Rec. Auckland Inst. Mus.* 19:101-108.
- BEEVER, R.E., A.E. ESLER and A.E. WRIGHT
 1984 Botany of the large islands of the eastern Bay of Islands, northern New Zealand. *Tane* 30:251-273.
- CAMERON, E.K.
 1984 Vascular plants of the three largest Chickens (Marotere) Islands: Lady Alice, Whatupuke, Coppermine: north-east New Zealand. *Tane* 30: 53-75.
- ESLER, A.E.
 1978 Botany of the Manawatu district, New Zealand. *N.Z. Dep. Scient. Res. Inf. Ser.* No.127:1-206.
 1984 Asparagus. *Auck. Bot. Soc. Newsl.* 39(2):46-47.
- GARNOCK-JONES, P.J.
 1979 Checklist of dicotyledons naturalised in New Zealand. 4. Rhoeadales. *N.Z.J. Bot.* 17:303-310.
 1981 Checklist of dicotyledons naturalised in New Zealand. 8. Aizoaceae, Caryophyllaceae and Portulacaceae. *N.Z.J. Bot.* 19:59-65.
- GIVEN, D.R.
 1982 Checklist of dicotyledons naturalised in New Zealand. 13. Rosaceae. *N.Z.J. Bot.* 20:221-226.
 1984a Checklist of dicotyledons naturalised in New Zealand. 16. Compositae — tribes Vernoniaceae, Eupatorieae, Astereae, Inuleae, Heliantheae, Tageteae, Calenduleae and Arctoteae. *N.Z.J. Bot.* 22:183-190.
 1984b Checklist of dicotyledons naturalised in New Zealand. 17. Crassulaceae, Escalloniaceae, Philadelphaceae, Grossulariaceae, Limnanthaceae. *N.Z.J. Bot.* 22:191-193.
- HEALY, A.J.
 1958 Contributions to a knowledge of the adventive flora of New Zealand, No.6. *Trans. R. Soc. N.Z.* 85:531-549.
 1984 *Standard common names for weeds in New Zealand*. 2nd ed. N.Z. Weed and Pest Control Society (Inc.). 207p.
- HEALY, A.J. and E. EDGAR
 1980 *Flora of New Zealand* Vol.3. Wellington, Government Printer. 220p.
- HEGINBOTHAM, M. and A.E. ESLER
 1985 Wild vascular plants of the Opotiki-East Cape region, North Island, New Zealand. *N.Z.J. Bot.* 23:379-406.
- SMITH, W.W.
 1904 Plants naturalised in the county of Ashburton. *Trans. Proc. N.Z. Inst.* 36:203-225.
- SYKES, W.R.
 1981a Checklist of dicotyledons naturalised in New Zealand. 7. Scrophulariales. *N.Z.J. Bot.* 19:53-57.
 1981b Checklist of dicotyledons naturalised in New Zealand. 10. Polemoniales and Boraginaceae. *N.Z.J. Bot.* 19: 311-317.
 1982 Checklist of dicotyledons naturalised in New Zealand. 15 Annonales, Berberidales, Cactales, Fagales, some Geraniales, Juglandales, Laurales, Rutales, Sapindales, Salicales, Tiliales, Nyctaginaceae and Zygophyllaceae. *N.Z.J. Bot.* 20:333-341.

WEBB, C.J.

- 1978 Checklist of dicotyledons naturalised in New Zealand. 1. Umbelliferae. *N.Z.J. Bot.* 16:387-390.
- 1981 Checklist of dicotyledons naturalised in New Zealand. 6. Araliaceae, Buxaceae, Cornaceae, Casuarinaceae, Celastrales, Euphorbiaceae, Linaceae, Malvaceae, Polygalaceae, Urticales. *N.Z.J. Bot.* 19:45-51.